VX8 User's Guide

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E-EQ-VX8OGWW-A

LANGUAGE: ENGLISH

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The VX8 Vehicle Mount Computer

Introduction

The VX8 Vehicle Mount Computer (VMC) is a rugged, vehicle-mounted, PC (Personal Computer) equipped with a Microsoft® Windows® operating system. The VX8 is capable of wireless data communications from a fork-lift truck or any properly configured vehicle. The unit uses a PCMCIA radio (spread spectrum 2.4GHz) for wireless data communications.

The VX8 is a tablet-style computer and features a SVGA color TFT display. The touch-screen display supports graphic features and Microsoft Windows icons that the Windows XP operating system supports. An illuminated keyboard is available to facilitate use in dimly lit areas.

The VX8 provides the power and functionality of a desktop computer in a vehicle mounted unit, with a wide range of options:

- 600MHz or 1.0GHz Intel® Celeron® or 1.4GHz Intel® Pentium® CPU
- 512 or 1024MB of SDRAM
- Wireless options include 802.11abg, 802.11bg, Bluetooth®, and WAN. All options may not be available in all areas.
- Ethernet port
- USB port
- Choice of storage media
- SVGA display
- Standard, hardened and defroster touch screen options
- Built in Uninterruptible Power Supply (UPS)
- RAM Mount™ options

Note: The "VX8 Reference Guide" contains VX8 technical information and advanced functions.

Document Conventions

This reference guide uses the following document conventions:

ALL CAPS	All caps are used to represent disk directories, file names, and application names.
Menu|**Choice**	Rather than use the phrase "choose the **Save** command from the **File** menu", this manual uses the convention "choose **File**|**Save**".
"Quotes"	Indicates the title of a book, chapter or a section within a chapter (for example, "Document Conventions").
< >	Indicates a key on the keyboard (for example, <Enter>).
	Indicates a reference to other documentation.
	Differences in operation or commands due to radio type.
ATTENTION	Keyword that indicates vital or pivotal information to follow.
	Attention symbol that indicates vital or pivotal information to follow. Also, when marked on product, means to refer to the manual or operator's guide.
	International fuse replacement symbol. When marked on the product, the label includes fuse ratings in volts (v) and amperes (a) for the product.
Note:	Keyword that indicates immediately relevant information.
Caution	Keyword that indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
WARNING	Keyword that indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
DANGER	Keyword that indicates an imminent hazardous situation, which, if not avoided, will result in death or serious injury.

Environmental Specifications

Feature	**Specification**
Operating Temperature	-4°F to 122°F (-20°C to 50°C) [non-condensing]
Storage Temperature	-22°F to 122°F (-30°C to 50°C) [non-condensing]
Water, Sand Dust	IP65 per IEC60529
Vibration tested	According to: IEC 60068-2-64, Test Fh Vibration
Shock tested	According to: IEC 60068-2-29, Test Eb Bump
Moisture tested	According to: IEC 60068-2-30, Test Db

Quick Start

This section's instructions are based on the assumption that your new system is pre-configured and requires only accessory installation (e.g. antenna, external keyboard and/or barcode scanner) and a power source.

Use this guide as you would any other source book -- reading portions to learn about the VX8, and then referring to it when you need more information about a particular subject. This guide takes you through installation and operation of the LXE VX8.

In general, the sequence of events is:

1. Install Vehicle Mounting Bracket (and keyboard mounting bracket) on vehicle.
2. Secure VX8 in Mounting Bracket Assembly.
3. Connect power cable to the VX8. Connect DC to DC converter and optional screen blanking box.
4. Connect DC to DC converter to vehicle power.
5. Connect accessories to VX8, e.g. scanner, antenna, keyboard.
6. Secure all cables.
7. Turn the VX8 on.

The VX8 and its keyboard should be mounted in an area in the vehicle where it:

- Does not obstruct the vehicle driver's vision or safe vehicle operation.
- Can be easily accessed by anyone seated in the driver's seat.

Components

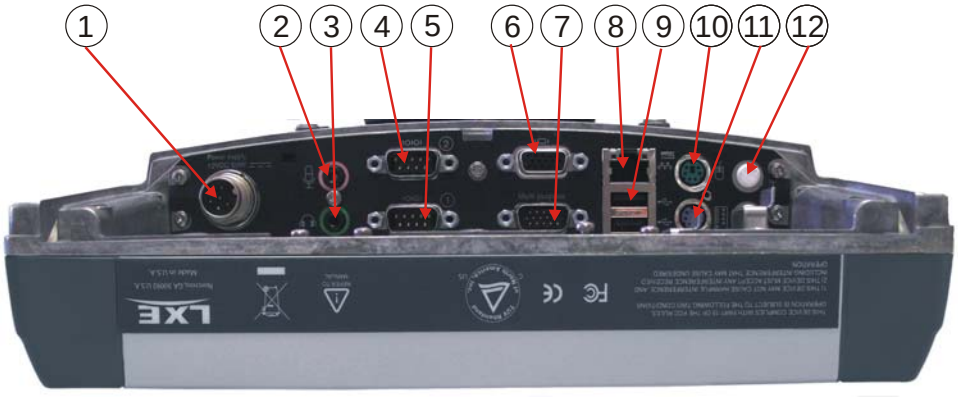


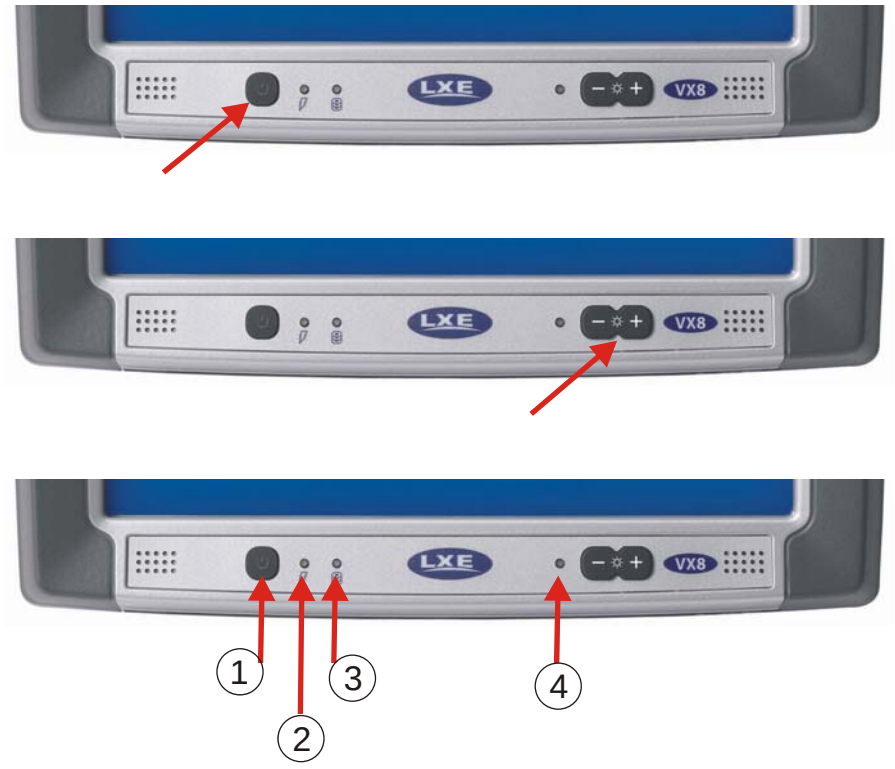
Figure 1 VX8 Components, Bottom

Position	Function
1	Power supply (12V DC 50W)
2	Mic. in
3	Audio out
4	COM2 RS232 +12V
5	COM1 RS232 +5V
6	VGA (external monitor)
7	Multipurpose connector (USB 2.0, RS232, +12 V)
8	RJ-45 Ethernet 10/100 (LAN)
9	2x USB 2.0
10	PS/2 Mouse
11	PS/2 Keyboard
12	Bluetooth antenna connector

Figure 2 VX8 Components, Top

The service lid has been removed to show components.

Position	Function
1	USB 2.0
2	Hard drive
3	Compact Flash slot (behind HD cable)
4	Battery/UPS
5	Mini PCI slot
6	PC Card slot (option)



On/Off Button

Screen Brightness

1. Power LED
2. UPS Mode LED
3. Hard Drive LED
4. Light Sensor

Figure 3 VX8 Components, Front

Function	Power LED
Off and not powered	Off (no light)
Off but powered	Green flash very slow
Operating normally	Green on
Suspend	Green flashing slow
Black-out Screen	Green flashing fast
Over voltage shutdown	Red on
Over temperature	Red flashing

Function	UPS Mode LED
UPS battery powered	Green flashing fast
UPS battery charging	Green on or flashing slow
UPS battery charged	Off (no light)

Function	Hard Drive LED
Hard drive activity	Green flashing
No activity	Off (dark)

The Full-Screen Display

The VX8 Display is a TFT color unit capable of supporting SVGA graphics modes. The maximum resolution is 800 x 600 pixels.

Microsoft Windows Control Panel

The Microsoft Windows Control Panel and System Tray icons panel provide standard Windows options for configuring the VX8, such as:

- Sound volume
- Display configuration
- Power management
- PCMCIA card management

Please consult your System Administrator or refer to commercially available Microsoft Windows user guides or the Windows on-line Help application for these standard Windows configuration options.

The Keyboards

The following keyboard options are available for the VX8:

- LXE VMT 95-key QWERTY keyboard with integrated pointing device – a customized rugged keyboard connected to the VX8 via an adapter cable.
- LXE VMT 60-key QWERTY keyboard – a customized rugged keyboard connected to the VX8 via an adapter cable.
- A keyboard and mouse with standard PS/2 connectors via the PS/2 ports on the VX8.
- A software keyboard, or virtual keyboard, can be displayed on the touch screen. The virtual keyboard can be used in place of, or in addition to, a physical keyboard.

For more details on each keyboard type, please refer to the appropriate section later in this section.

95 key with Integrated Pointing Device

60 key

Figure 4 The LXE VMT Keyboards with Cable

LXE 95-key QWERTY Keyboard with Pointing Device

Designed for ease of use with Windows operating systems, the 95-key keyboard with pointing device connects via a cable to the PS/2 ports on the VX8. Additional Windows keys (the Windows logo key and the Application key) and an integrated pointing device are provided for ease of use with Windows operating systems.

Figure 5 The 95-key QWERTY Keyboard

Key Maps

The 95-key keyboard supports all 104 keyboard functions (101 keyboard standard plus Windows keys) and includes an integrated pointing device and left and right mouse buttons. However, because the keyboard only has 95 keys, all functions are not visible (or printed on the keyboard). Therefore the VX8 keyboard supports what is called hidden keys -- keys that are accessible but not visible on the keyboard.

As with a standard keyboard, many keys are found in the Alphanumeric section as well as on the Numeric keypad (i.e. the 1 key is found on the numeric keypad and above the alpha characters on standard keyboards). However these keys send distinctly different scan codes when the keys are pressed.

The hidden keys supported by the VX8 are listed in Appendix A, “Key Maps”.

NumLock and the VX8

For the 95-key keyboard, the NumLock key and the numeric keys are backlit **green** when NumLock is off. When NumLock is on, the backlight for the NumLock key and the numeric keys is **amber**.

Please refer to the “VX8 Reference Guide” for more information on NumLock.

CapsLock, Scroll Lock and the VX8

For the 95-key keyboard, the CapsLock key is backlit **green** when CapsLock is off. When CapsLock is on, the backlight for the CapsLock key is **amber**.

The Scroll Lock key is backlit **green** when Scroll Lock is off. When Scroll Lock is on, the backlight for the Scroll Lock key is **amber**.

The default values for CapsLock and Scroll Lock are Off.

Keyboard Backlight

The 95-key keyboard backlights each key with an LED. The keyboard backlight is manually controlled using the "backlight" key in the upper right hand corner of the keyboard. Pressing the backlight key cycles the keyboard backlight through the levels of backlight intensity:

- Off
- Maximum intensity
- Medium intensity
- Low intensity.

Note: The 2nd key function is available on the 60-key keyboard only.

LXE 60-key QWERTY Keyboard

The 60-key keyboard has 101 keyboard functions, including a numeric keyboard pad. Please refer to Appendix A, “Key Maps”, for keypress combinations.

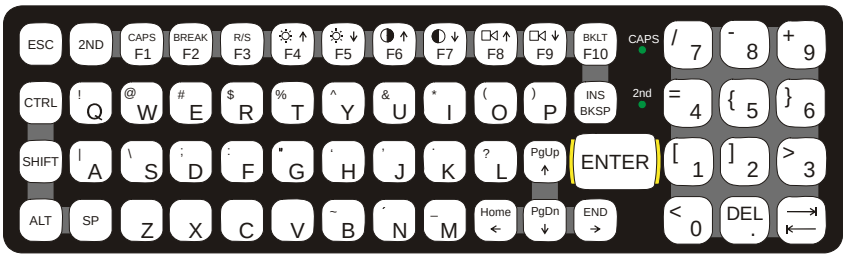


Figure 6 The 60-key QWERTY Keyboard

Key Maps

The 60-key keyboard supports all 101 keyboard functions. However, because the keyboard only has 60 keys, all functions are not visible (or printed on the keyboard). Therefore the VX8 keyboard supports what is called hidden keys -- keys that are accessible but not visible on the keyboard.

On standard keyboards many keys are found in the Alphanumeric section as well as on the Numeric keypad (i.e. the 1 key is found on the numeric keypad and above the alpha characters on standard keyboards). However these keys send distinctly different scan codes when the keys are pressed. The default codes for the VX8 number keys correspond to the numeric keypad on standard keyboards. In order to duplicate the codes sent when the alphanumeric key is pressed, the hidden keystroke must be used.

The hidden keys supported by the VX8 are listed in Appendix A, “Key Maps”.

Unused Key Functions

There are several key functions on the 60-key keyboard that are not used on the VX8. These include:

- <2nd> <F3> – The Resume/Suspend function is not used as Microsoft Windows controls all power management modes.
- <2nd> <F4> and <2nd> <F5> – The Display Brightness functions are not used as the display brightness is adjusted by the buttons on the VX8.
- <2nd> <F6> and <2nd> <F7> – The Contrast functions are not used as the contrast is not adjustable on the TFT display on the VX8.
- <2nd> <F8> and <2nd> <F9> – The Volume control keys are not used as volume is adjusted via the Microsoft Windows Volume icon in the System Tray.
- <2nd> <F10> – Please see "Keyboard Backlight" later in this section for details on toggling the keyboard backlight.

NumLock and the VX8

The 60-key keyboard does not have a NumLock indicator or key. NumLock can be toggled On or Off using the <2nd> <SHIFT> <F10> keypress sequence.

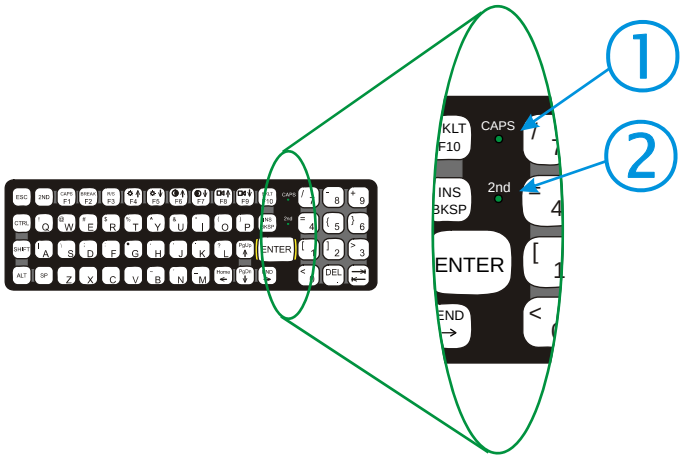
Please refer to the "VX8 Reference Guide" for more information on NumLock.

Keyboard Backlight

The LXE keyboard keys are backlit with LEDs. The backlight is manually controlled using the <2nd> + <CTRL> + <F10> keypress sequence.

Keyboard LEDs

The VX8 keyboard has two (2) LED indicators.



1. CapsLock Mode LED Indicator
2. Secondary Mode LED Indicator

Figure 7 Keyboard LEDs

CAPS LED

This LED indicates the state of the keyboard CapsLock mode. If CapsLock is enabled this LED is illuminated green. When CapsLock is off, the LED is dark.

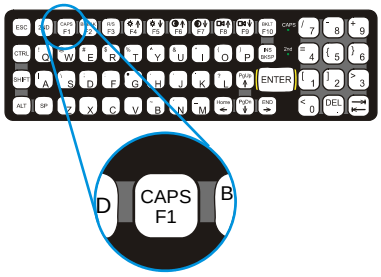


Figure 8 The CapsLock Key

Press <2nd> then <F1> to toggle CapsLock On and Off.

The default value of CapsLock is "Off".

Secondary Keys LED

The VMT keyboard is equipped with several secondary keys. These keys are identified by the superscripted text found on the keyboard keys. The secondary keys are accessible by using two (2) keystrokes: the <2nd> key followed by the superscripted key.

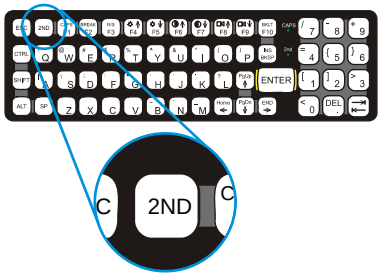


Figure 9 The Secondary Key

Once the <2nd> state is enabled (by pressing the <2nd> key) the Secondary Mode LED is illuminated and the <2nd> state is enabled until another key is pressed. The <2nd> key is toggled on with a <2nd> keypress and then immediately off with another <2nd> keypress.

For example:

Press <2nd> and <F1> to turn CapsLock on and off.

Press <2nd> and <↑> to initiate the PgUp command.

Press <2nd> and <Q> to type the "!" key.

Press <2nd> and <BkSp> to enter the Insert (Ins) mode.

Control Keys

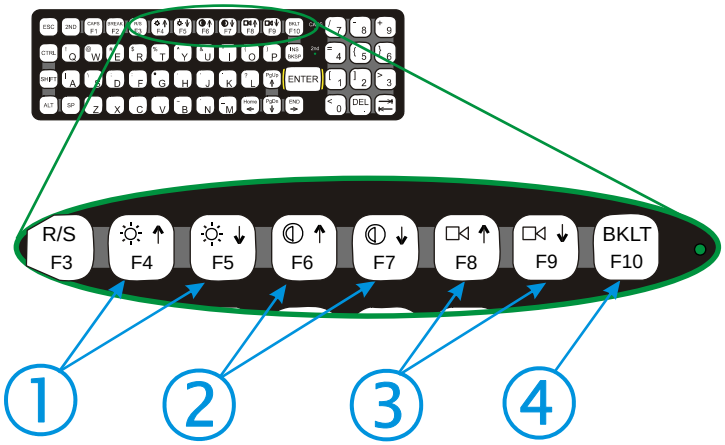
The VMT keyboard has several control keys. Because of the construction of the VX8 and the Microsoft Windows operating system, many of the Control Keys are not used on the VX8.

Note: The 2nd functions of the <F4> and <F5>keys are not used as the display brightness is adjusted via the buttons on the VX8.

The 2nd functions of the <F6>, and <F7> keys are not used as the VX8 has TFT LCD screen with no provision for contrast adjustments.

The 2nd functions of the <F8> and <F9> keys are not used as the sound volume on the VX8 is controlled with the Sound icon in the Microsoft Windows System Tray.

The <F10> key is used to toggle the backlight as part of the keypress sequence <2nd> + <CTRL> + <F10>. This key sequence immediately toggles the status of the keyboard backlight. Pressing <2nd> + <F10> has no effect on the keyboard backlight.



1. Display Brightness Control Keys (Not used)
2. Display Contrast Control Keys (Not used)
3. Speaker Volume Control Keys (Not used)
4. Backlight Control Key (See above)

Figure 10 The VMT Keyboard Display Controls

General Windows Keyboard Shortcuts

Use the keyboard shortcuts in the chart below to navigate with any VX8 keyboard. These are standard keyboard shortcuts for Windows applications.

Press these keys …	To …
CTRL + C	Copy
CTRL + X	Cut
CTRL + V	Paste
CTRL + Z	Undo
DELETE	Delete
SHIFT with any of the arrow keys	Select more than one item in a window or on the desktop, or select text within a document.
CTRL+A	Select all.
ALT+ESC	Cycle through items in the order they were opened.
CTRL+ESC	Display the Start menu.
ALT+Underlined letter in a menu name	Display the corresponding menu.
Underlined letter in a command name on an open menu	Carry out the corresponding command.
ESC	Cancel the current task.

The touchscreen provides equivalent functionality to a mouse:

- A touch on the touchscreen is equivalent to a left mouse click.
- Many items can be moved by the "drag and drop" method, touching the desired item, moving the stylus across the screen and releasing the stylus in the desired location.
- A double stylus tap is equivalent to a double click.
- Right click is generated by tapping the mouse icon in the system tray. After tapping, the mouse icon highlights the right button of the icon in red. The next touchscreen tap is treated as a right click. The mouse icon then returns to the left button highlighted in red so subsequent taps are treated as left clicks.

Non-LXE Keyboard/Mouse

The VX8 accepts a PS/2 keyboard and/or mouse attached to the VX8 using the PS/2 ports. Please refer to documentation provided with the PS/2 keyboard and mouse for more information on their operation.

Software Keyboard

The optional software keyboard provides a virtual keyboard on the touchscreen. The soft keyboard is available in several configurations.

Figure 11 Virtual Keyboard, Sample Configuration

Note: When the virtual keyboard is displayed, the physical keyboard is still active, if attached. Therefore it is possible to input data from both keyboards.

Power Supply

Vehicle power input for the VX8 is dependent on the power supply selected. Availability of power supplies may vary by region:

VX89A301PSDC9TO36V, Power Supply, DC/DC for 9-36V trucks, 60W

VX89A302PSDC48V, Power Supply, DC/DC for 18-60V trucks, 60W

VX89A303PSDC60TO110V, Power Supply, DC/DC for 50-150V trucks, 60W

Important – A DC to DC power supply is required to provide a conditioned power source to the VX8. The VX8 cannot be connected to vehicle power without the DC to DC power supply.

If DC power is not available – for example, in an office environment – an optional external Input Power Supply can be used to convert AC wall power to an appropriate DC level. See the section titled "Installation", sub-section titled "External Power Supply."

Uninterruptible Power Supply Battery Pack

An Uninterruptible Power Supply (UPS) is built into the VX8 to provide power for short periods of time when vehicle power is unavailable (such as when vehicle batteries are swapped). The UPS, when enabled, can be used to power the VX8 for a specified period of time before shutdown.

Configuration of the UPS is handled via the VMT Manager option in the Control Panel. For more information consult the VX8 Reference Guide or the system administrator responsible for the configuration of the VX8.

Getting Help

All LXE manuals are now available on one CD and they can also be viewed/downloaded from the LXE website. Contact your LXE representative to obtain the LXE Manuals CD.

You can also get help from LXE by calling the telephone numbers listed on the LXE Manuals CD, in the file titled "Contacting LXE". This information is also available on the LXE website www.lxe.com.

Explanations of terms and acronyms used in this guide are located in the file titled "Glossary" on the LXE Manuals CD.

Manuals and Accessories

Manuals

The following manuals are available on the LXE Manuals CD:

- VX8 Reference Guide
- Contacting LXE
- LXE Technical Glossary

Accessories

LXE carries a full line of accessories for the VX8. For information on these accessories, please refer to the VX8 & VX9 accessory catalog. This catalog is available at www.lxe.com or by contacting your LXE representative.

Installation

Install Mounting Brackets

Caution:

This device is intended to transmit RF energy. For protection against RF exposure to humans and in accordance with FCC rules and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20 cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.

Several types of mounts are provided for the VX8. For a complete listing of mounting kits and the contents of each kit, please refer to the VX8 & VX9 accessory catalog. This catalog is available at www.lxe.com or by contacting your LXE representative.

VX8 with single RAM ball option

If the VX8 is ordered with a single RAM ball, available mounting options include:

- Truck bracket with a single RAM ball (no keyboard mount provision)
- Truck bracket with a RAM ball for VX8 mount plus a RAM ball for keyboard mount
- RAM ball base with integrated keyboard bracket for back of VX8.

VX8 with dual RAM ball option

If the VX8 is ordered with dual RAM balls, available mounting options include:

- Truck bracket with a dual RAM balls (no keyboard mount provision)
- Truck bracket with dual RAM balls for VX8 mount plus a RAM ball for keyboard mount

Keyboard mounting options

They keyboard may be mounted using:

- Integrated keyboard bracket included in some single RAM ball mounting kits
- A RAM mount using the keyboard ball on some truck brackets
- A stand alone keyboard mount using a RAM ball attached to the vehicle

Individual brackets

Many individual mounting brackets are also available.

RAM Mount System

The following RAM balls are used to mount the VX8:

D-sized (2.25”) balls and arms

Used to mount the VX8 when a single RAM ball is ordered on the back of the VX8. A D-sized ball is also used on the truck.

C-sized (1.5”) balls and arms

Used to mount the VX8 when dual RAM balls are ordered on the back of the VX8. A pair of C-sized balls is also used on the truck.

Keyboard brackets also use C-sized ball. A corresponding C-sized ball is either included as part of the VX8 mounting bracket or mounted independently on the truck for the keyboard assembly.

Mounting Procedure

Step 1 – Mount Vehicle RAM Ball(s)

Determine the position for mounting the RAM ball(s). Be sure to position the RAM ball(s) to allow access to the switches and ports on the bottom of the VX8.

Depending on the options ordered with the VX8, the RAM ball may be:

- A single or dual RAM ball mounted directly to the truck
- A single or dual RAM ball mounted to a plate. The plate then mounts to the truck.
- A single RAM ball integrated with a mounting plate
- A single or dual RAM squeeze clamp style ball
- A single or dual RAM pipe clamp style ball

Additionally, some mounting plates contain a provision for another RAM ball which is used to mount the keyboard.

Sample mounting options:

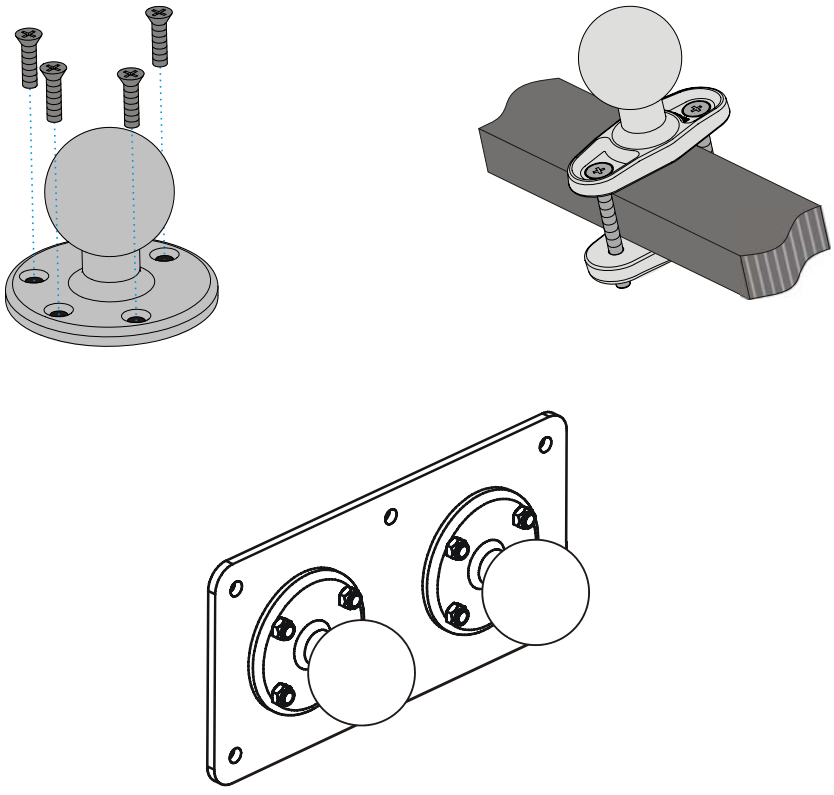


Figure 12 Sample RAM Ball Mounting Options

Step 2 – Prepare VX8

The VX8 is delivered with one or two RAM balls installed depending on the configuration ordered.

If an integrated keyboard bracket is to be mounted to the rear of the VX8, follow the procedure below. Otherwise, skip to the next step.

1. The VX8 must be off and the power cord should not be attached during this procedure.
2. Place the VX8 face down on a stable surface.
3. Remove the RAM ball from the back of the VX8. The hardware attaching the RAM ball is not reused.
4. Install the 2 M5x6 screws in the holes shown below.

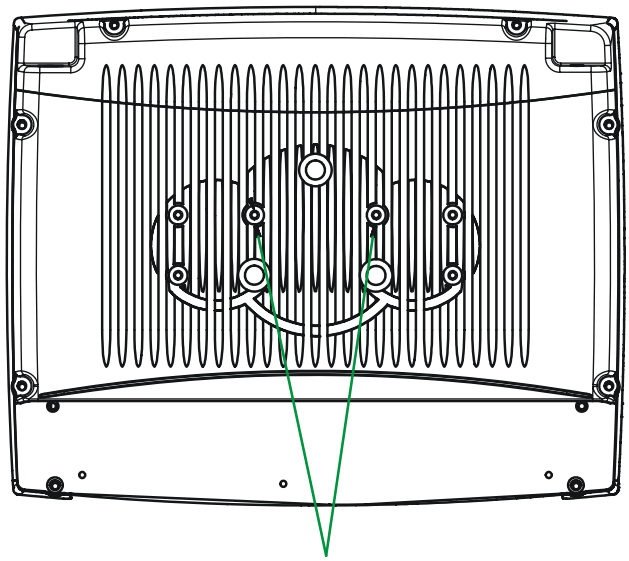
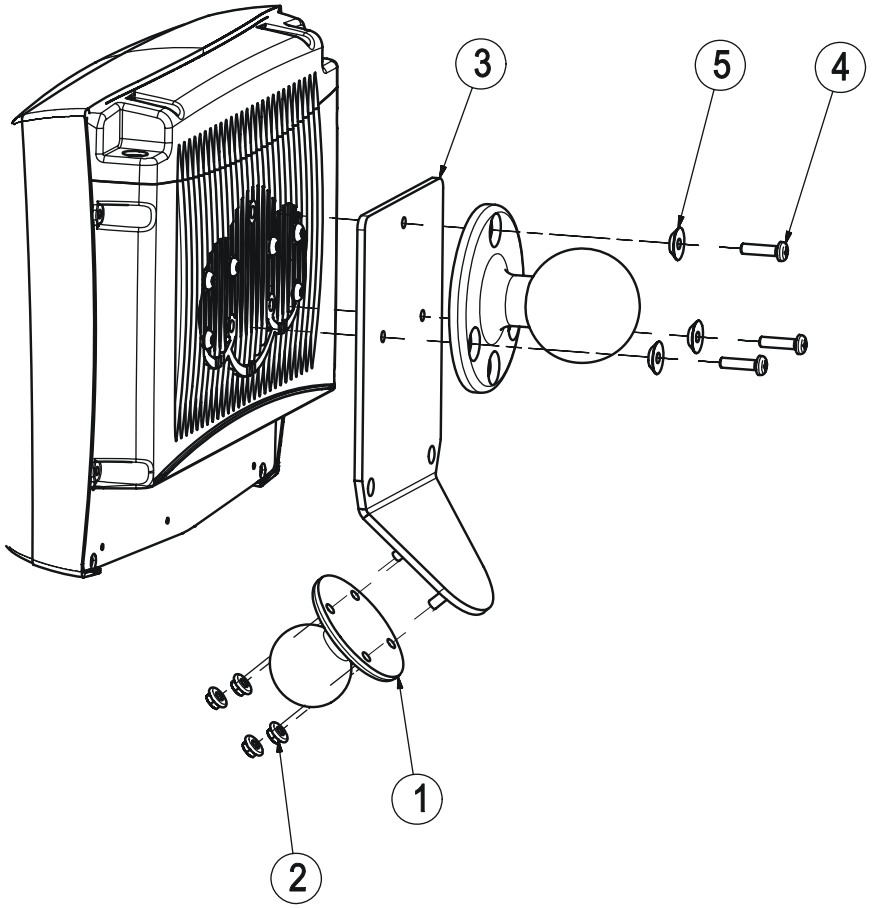


Figure 13 Screw Installation, VX8

5. Install the 1.5” (C-size) RAM ball on the keyboard bracket using four M5 locking nuts.

6. Install the keyboard bracket and the 2.25” (D-Size) RAM ball (removed previously) onto the back of the VX8. Use three M5x20 screws with three tapered washers.



1. 1.5” RAM ball
2. Locking nut, M5
3. Integrated keyboard bracket
4. Screw, M5x20 (DO NOT reuse original screws)
5. Washer for RAM ball (DO NOT reuse original washers)

Step 3 – Attach Keyboard to Bracket

LXE Keyboards

If using the optional integrated keyboard mount, attach the keyboard to keyboard mounting plate, using the appropriate screws:

- For the 95 key keyboard, use four 8-32x5/8 screws
- For the 60 key keyboard, use four 10-32x5/8 screws

Note: 95-key LXE keyboard shown.

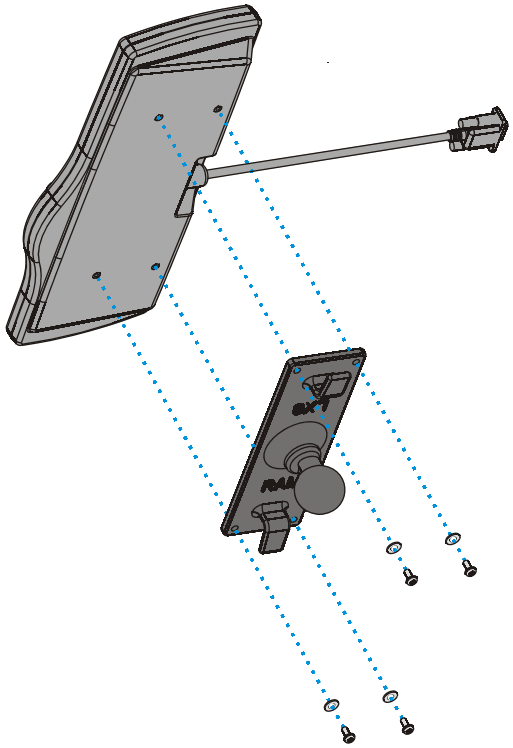


Figure 14 Attach Keyboard to Mounting Plate

Note Excess keyboard cable length can be looped around the hooks on the bottom of the keyboard mounting plate.

Other Keyboards

A generic keyboard plate is provided for non-LXE keyboards.

1. Attach the RAM ball to the keyboard mounting plate.
2. Attach the keyboard to the keyboard mounting plate. The mounting kit DOES NOT include hardware to attach the keyboard to the plate.

Step 4 – Attach VX8 and Keyboard Assembly to RAM Base

Single RAM ball

1. Use a single D-sized RAM arm to attach the VX8 assembly to the RAM ball on the vehicle.
2. Use a single C-sized RAM arm to attach the keyboard assembly to the C-sized ball on either the VX8 keyboard bracket or a C-sized ball on the vehicle.

Dual RAM balls

1. Use a pair of C-sized arms to attach the VX8 assembly to the RAM balls on the vehicle.
2. Use a C-sized arm to attach the keyboard assembly to a C-sized ball on the vehicle.

Completed Assembly

Samples of completed VX8 bracket assemblies are shown below

VX89A021KIT21 including RAM ball base and LXE keyboard bracket

VX89A025KIT25 including RAM ball base and generic keyboard bracket

Figure 15 Completed RAM Mount Assembly

Removing the Port Lid

Before any cables can be attached to the VX8, the port lid must be removed. The port lid is held in place with eight (8) Torx 20 screws. Remove the screws and the port lid and set aside for reinstallation once all accessories are attached.

Figure 16 Removing the Port Lid

Connect Keyboard

The VX8 has PS/2 connectors for the keyboard and mouse.

Figure 17 Keyboard and Mouse Connectors

LXE VMT Keyboard

The VX8 has PS/2 connectors for the keyboard and mouse. The connectors are color coded (green for keyboard, purple for mouse). The LXE VMT keyboards use an adapter cable to attach to the VX8.

Figure 18 LXE Keyboards with Adapter Cable

1. Turn the VX8 off before attaching the keyboard cable.
2. Insert the PS/2 mouse and keyboard plugs on the adapter cable into the corresponding port on the VX8
3. Attach the other end of the adapter cable to the connector on the keyboard. Once the pins are firmly seated, tighten (turning clockwise) the thumbscrews.
4. Secure the cable with a strain relief (see instructions later in this chapter).
5. Turn the VX8 on.

Non-LXE Keyboard or Mouse

A PS/2 keyboard and mouse can be connected directly to the VX8. The green PS/2 connector on the VX8 is for the keyboard, the purple PS/2 connector is for a mouse.

1. Attach a PS/2 keyboard and/or PS/2 mouse to the appropriately labeled PS/2 connector.
2. Secure the cable with a strain relief (see instructions later in this chapter).
3. Turn the VX8 on.

Connect Serial Barcode Scanner

Refer to the documentation received with the barcode scanner for complete instructions. Read all warnings and caution labels.

Please note Pin 9 of COM2 provides +12V and should not be used for a scanner that requires 5V.

Pin 9 of COM1 must be configured to provide +5V. An LED illuminates near the COM1 connector when the +5V option is enabled. The LED is off when RI is enabled.

Configuration of COM port power is handled via the VMT Manager option in the Control Panel. For more information consult the VX8 Reference Guide or the system administrator responsible for the configuration of the VX8.

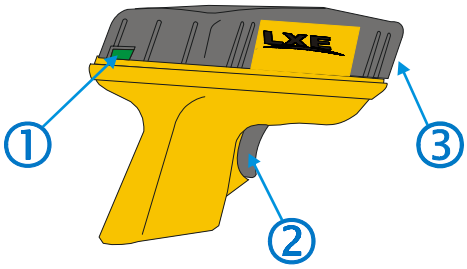
The scanner cable is attached to the COM1 port. The cable requires a nine-pin D-shell female connector for the VX8.

Note: Use of a shielded cable is required to maintain FCC and CISPR22 emissions compliance.

Figure 19 Connect Serial Scanner Cable

1. Seat the connector firmly over the pins and turn the thumbscrews in a clockwise direction. Do not overtighten.

When you have finished using the scanner, remove it from the VX8 and store the scanner in a closed container or bag.



1. Good Scan LED (or equivalent)
2. Trigger
3. Laser Aperture at Front

Figure 20 Generic Barcode Scanner

Refer to the documentation received with the barcode scanner for complete instructions.

Connect USB Devices

The VX8 provides an internal USB port and an external USB.

Internal USB Port

An internal USB port is provided behind the user access panel on the top of the VX8.

1. Loosen the screws securing the access panel cover so the cover can be removed.

2. Plug the desired device, such as a USB mouse or floppy drive, into the USB port. Refer to the documentation for your USB device for more details on installation. USB devices may be installed, removed or swapped without turning off the VX8.

   While the access panel is open, the VX8 IS NOT environmentally sealed. The internal USB port should only be used when the VX8 is in a clean, dry, dust free environment. Use the external USB port if a USB device must be used in a harsh environment.

3. When finished with the USB device, unplug the device and reattach the user panel access cover.

External USB Port

A pair of external USB ports is available located on the bottom of the VX8.

Figure 21 External USB Ports

1. Plug the desired device, such as a USB mouse or floppy drive, into the end of the dongle cable with the USB port. Refer to the documentation for your USB device for more details on installation. USB devices may be installed, removed or swapped without turning off the VX8.

2. Secure the cable with a strain relief (see instructions later in this chapter).

Connect Ethernet Cable

Figure 22 Connect Ethernet Cable

1. Insert the network cable and ensure it is firmly seated in the connector jack.

2. To remove the Ethernet cable, press the release tab on the cable end.

Connect External Headset

The VX8 provides an external headset connection via an audio jack connector and a microphone to a separate microphone jack connector. The connectors are color keyed and marked with the headset and microphone symbols.

Figure 23 Connect External Headset

1. Insert the speaker or headphone plug into the audio connector; making sure the plug is firmly seated in the jack.

2. Insert the microphone plug into the microphone connector; making sure the plug is firmly seated in the jack.

Connect Power Cable

Figure 24 Connect Power Cable to VX8

External AC Power Supply, Optional

Figure 25 Optional AC Power Supply

How To: Connect External Power Supply

1. Turn the VX8 off.
2. Connect the appropriate detachable cordset to the external power supply.
3. Plug cordset into appropriate, grounded, electrical supply receptacle (AC mains).
4. Connect the watertight connector end to the VX8's Power Connector by aligning the connector pins to the power connector; push down on the watertight connector and twist it to fasten securely.
5. Turn the VX8 on.

Vehicle 12-80VDC Power Connection

Connecting Cables to Power Sources

The DC to DC converter is used to power the VX8. The converter must be used with the VX8 regardless of vehicle voltage.

Specifications for electrical supply

Input Voltage	Always observe input voltage range specified on the DC to DC power supply and the optional screen blackout box.
Output Voltage	12 VDC ± 10%
Power	50 W
Fuse	5 A (slow blow fuse) 3 A (for optional screen blackout box. Fuses are USER SUPPLIED

Please refer to the appropriate wiring schematic on the following pages for wiring colors and connections:

	For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a user supplied 5 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal.
	For installation by trained service personnel only.
	Risk of ignition or explosion. Explosive gas mixture may be vented from battery. Work only in well ventilated area. Avoid creating arcs and sparks at battery terminals.

How To: Connect Vehicle Electrical Connection

1. Please review the proper wiring schematic illustration, later in this section, before beginning power cable install.
2. The computer must be powered off.
3. Begin by connecting the power cable to the VX8. Work from this connection with the last connection being to the vehicle's power source.
4. Route the cable from the VX8 to the DC to DC converter and, optionally, the blackout screen box. Cut the cable to length and strip the wire ends. If the blackout screen box is not used, do not strip the green and yellow wires.

   Route the power cable the shortest way possible. The cable is rated for a maximum temperature of 105°C (221°F). When routing this cable it should be protected from physical damage and from surfaces that might exceed this temperature.

   Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate.

   Note: If the vehicle is equipped with a panel containing Silicon Controller Rectifiers (SCR's), avoid routing the power cable in close proximity to these devices.

   Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.
5. Remove the lid from the DC to DC converter. Attach the stripped wire ends to the output side of the DC to DC converter. Attach stripped wire ends to the input side of the DC to DC converter.

Figure 26 DC to DC Converter

The input and output blocks each have two + and two – minus connectors. Either connector in the block can be used to connect the matching polarity wire.

Use the looms and wire ties to secure all wiring then reattach the cover with the screws.

6. If the blackout screen box is used for the VX8 installation, attach the stripped wire ends to the box. Refer to the applicable following diagram and the label on the blackout screen box for proper wiring connection.

Figure 27 Screen Blackout Box

7. Connect the DC to DC converter to the vehicle's electrical system.
8. While observing the fuse requirements specified above, connect the power cable as close as possible to the actual battery terminals of the vehicle. When available, always connect to unswitched terminals in vehicle fuse panel, after providing proper fusing.

   ATTENTION: ***For uninterrupted power, electrical supply connections should not be made at any point after the ignition switch of the vehicle.***

9. If used, connect the wiring for the blackout screen box.
10. Use proper electrical and mechanical fastening means for terminating the cable. Properly sized "crimp" type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 18AWG (1mm^2) conductors.
11. Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to over tighten and pinch conductors or penetrate outer cable jacket.

Wiring Schematic without Blackout Screen Box

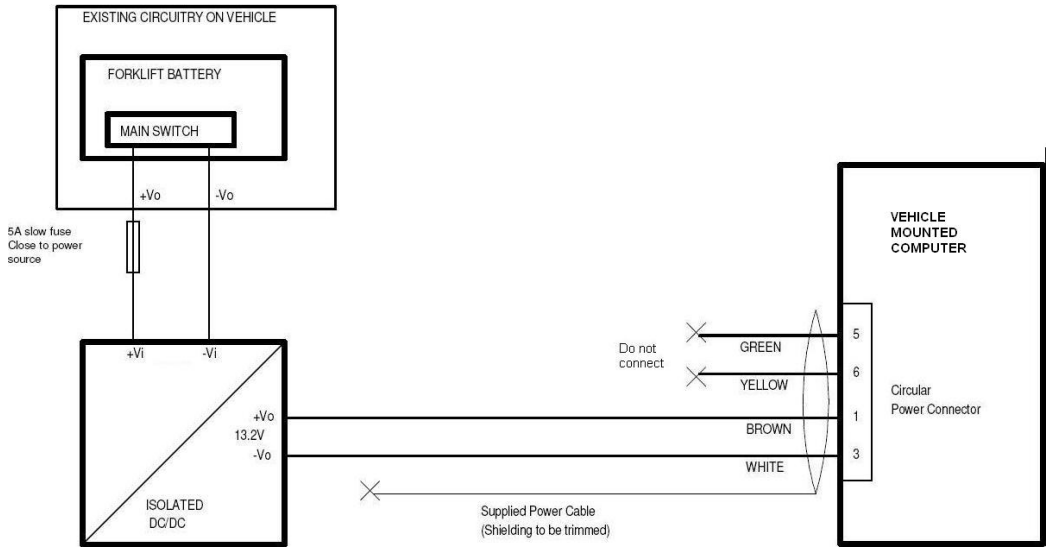


Figure 28 Power Cable Routing without Blackout Screen Box

Wiring Schematic with Blackout Screen Box

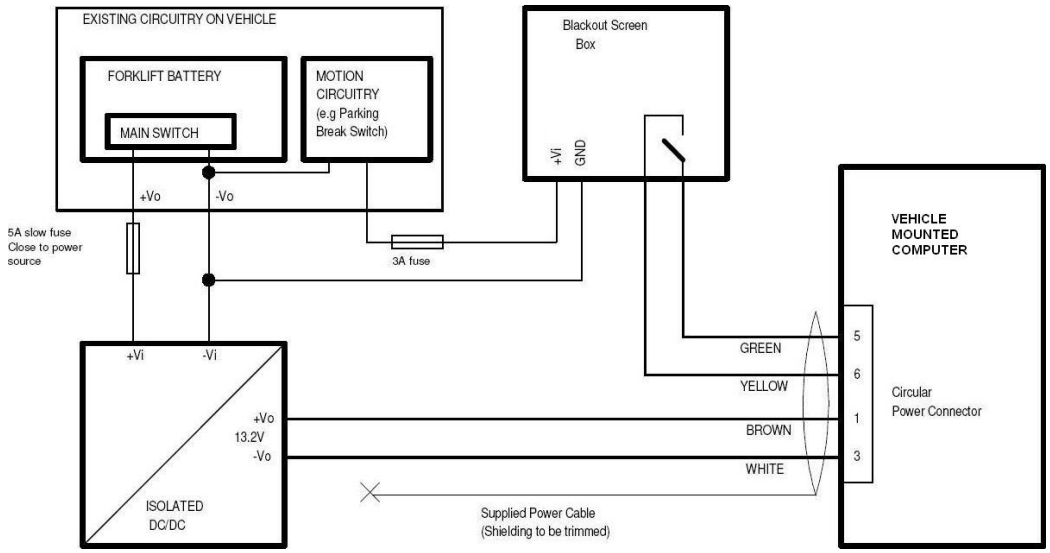


Figure 29 Power Cable Routing with Blackout Screen Box

Strain Relief Cable Clamps

Use the strain relief to prevent the contacts from disconnecting from the unit while operating.

The brackets for strain relief can be turned around to fit various contact lengths. Use strain relief brackets for USB and PS/2 connectors.

Figure 30 Strain Relief Brackets

When all peripherals are connected, the cabling should be put in the cable protection tube, see below.

Cable Protection Tube

Cut the provided openable cable protection tube to the appropriate length. Put the cables in one half of it and then put the other half on as illustrated below.

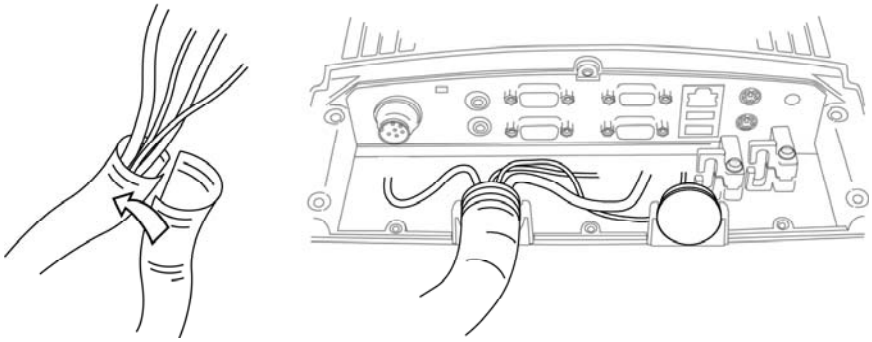


Figure 31 Applying Cable Protection Tube

Before mounting the port lid, fit the cable tube in the sockets of the chassis and lid. Then secure the port lid as detailed below.

Securing Port Lid

The screws used for the port lid should be alternately tightened to provide proper dust and moist protection (IP65 requirement). There are eight (8) Torx 20 screws securing the port lid.

Figure 32 Mounting the Port Lid

Fasten the cable tube in the vehicle, without putting strain on the tube. Now the VX8 is ready to be mounted in the vehicle.

Operation

Powering On/Off

Connect the VX8 to a power source, either AC or Vehicle.

The power (on/off) switch is located on the front of the VX8. The switch is sealed by a rubber membrane. The Status LED on the VX8 is illuminated when the power is on:

Press the power switch to start the VX8. You are now ready to use the computer.

Alternatively, the touchscreen can be configured so an extended touch on the touchscreen provides a power on signal. Configuration of the touchscreen power on option is handled via the VMT Manager option in the Control Panel. For more information consult the VX8 Reference Guide or the system administrator responsible for the configuration of the VX8.

Enter data using the keyboard, touchscreen or a Serial Barcode Scanner.

Note: Always turn the computer off prior to connecting or disconnecting any power source.

Figure 33 The VX8 Power Switch

The VX8 is designed for a controlled shutdown when using the power switch. A controlled shutdown first closes any open programs, and then shuts down the Windows operating system. DO NOT remove power from the VX8 without shutting down the VX8.

The VX8 shutdown may be initiated in any of the following ways:

- Selecting the "Shut Down" option from the Windows Start Menu.
- Selecting the "Shut Down" option from the Windows Task Manager. The Windows Task Manager is displayed by pressing Ctrl-Alt-Del.
- Momentarily pressing and releasing the power button. The VX8 behavior when the power button is pressed can be configured in the Power Options section of the Windows Control Panel.
- An extended touch on the touchscreen can be configured to power down the VX8. To enable this option, refer to the VMT Options section of the Windows Control Panel. Once enabled, the extended touch behaves the same as a press of the power switch.
- Pressing and holding the power button for approximately five seconds. Any open programs and the Windows operating system are shut down before power off. Use this option to shut down the VX8 when the operating system is not responding.

For more information on the Windows shutdown process, please refer to the Windows help function or commercially available Windows help guides.

Reset Key Sequence (Reboot)

Note: The <CTRL> + <ALT> + <DEL> function can be used to shut down a Microsoft Windows application or reboot the computer. The keypress brings up the "Task Manager" window.

To reboot the VX8 without turning the computer off, press

<CTRL> + <ALT> + <DEL>

and select Shut Down from the Task Manager window.

When the system is rebooted, Windows performs a controlled shutdown, closing any open programs, before shutting down the Windows operating system. The current contents of RAM are lost when rebooting. It is recommended to save any needed data and exit in an orderly fashion from any running programs before rebooting.

Keyboard Backlight

LXE VMT keyboards feature LEDs that illuminate the individual keys.

95 Key Keyboard

The backlight is manually controlled using the “backlight” key in the upper right hand corner of the keyboard. Pressing the backlight key cycles the backlight through the levels of backlight intensity:

- Off
- Maximum intensity
- Medium intensity
- Low intensity.

60 Key Keyboard

The keyboard backlight may be toggled manually by pressing <2nd> + <CTRL> + <F10>. This key sequence immediately changes the state of the keyboard backlight as follows:

- Turns the backlight Off if it is currently On.
- Turns the backlight On if it is currently Off.

PS/2 Keyboard

Standard PS/2 keyboards generally do not feature keyboard backlighting.

Display and Touchscreen

The VX8 Display is a thin-film transistor display capable of supporting SVGA graphics modes. Display size is 800 x 600 pixels. The display covering is designed to resist stains. The touch screen allows signature capture and touch input.

The touch screen is a Resistive Panel with a scratch resistant finish that can detect touches by a stylus, and translate them into computer commands. In effect, it simulates a computer mouse. Only Delrin or plastic styluses should be used.

Note: Always use the point of the stylus for tapping or making strokes on the display. Never use an actual pen, pencil or sharp object to write on the touch screen.

An extra or replacement stylus may be ordered from LXE. See the "Accessories" section for the stylus part number.

Adjusting Screen Display

The color TFT display is an active source of light. The VX8 display brightness can be adjusted via the brightness control buttons located on the VX8.

Figure 34 Screen Brightness Controls

Screen brightness is adjusted using the buttons (+) or (-) on the front of the VX8.

The screen's background lighting can be turned off by holding both buttons simultaneously.

Background lighting is restored by pushing one of the buttons or by touching the screen

The ambient-light autosensor is located on the front, to the left of the brightness controls.

Configuration of the ambient light control is handled via the VMT Manager option in the Control Panel. For more information consult the VX8 Reference Guide or the system administrator responsible for the configuration of the VX8.

Cleaning the Display

Keep fingers and rough or sharp objects away from the display. If the glass becomes soiled or smudged, clean only with a standard household cleaner such as Windex® without vinegar or use Isopropyl Alcohol. Do not use paper towels or harsh-chemical-based cleaning fluids since they may result in damage to the glass surface. Use a clean, damp, lint-free cloth. Do not scrub optical surfaces. If possible, clean only those areas which are soiled. Lint/particulates can be removed with clean, filtered canned air.

Calibrating the Touchscreen

Although the touch screen is installed and calibrated at the factory, users may make adjustments to it by using the Fujitsu Touch Panel on the Microsoft Windows Programs menu. To calibrate the touchscreen, select **Start | Programs | UPDD | Calibrate**.

The calibration utility displays a cross on the screen. Touch the center of the cross with the stylus and hold for a few seconds. Release and repeat with the next cross. After all locations have been touched, the calibration utility automatically closes.

If no input is received, the calibration utility times out. Press ESC to exit the calibration utility without saving any changes,

Power Management

All Power Management is handled through the Microsoft Windows Control Panel. System standby and turning the monitor and hard disk off are accessed from the Power Management icon.

For more information consult the VX8 Reference Guide or the system administrator responsible for the configuration of the VX8.

Note: When configuring power management, consider that the VX8 continues to draw power from the vehicle battery when not in use. When power management is used, the drain on battery power during periods of inactivity is minimal.

Laser Barcode Scanner Warnings

- Do not look into the laser's lens.
- Do not stare directly into the laser beam.
- Do not remove the laser caution labels from the scanner.
- Do not connect the laser barcode module to any other device.

Caution:	*Please read the caution labels.* *Avoid exposure. Laser light is emitted from the scanner's aperture.* *Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.* *The scanner uses laser light. The following labels are* ***representations*** *of caution and warning labels placed on laser scanners.*

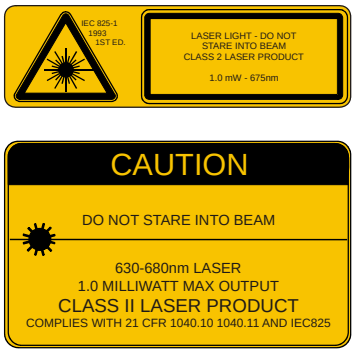


Figure 35 Caution Labels Class II Scanner

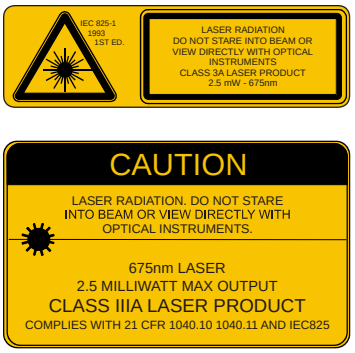


Figure 36 Caution Labels Class IIIA Scanner

Do not pour, spray, or spill any liquid on the scanner. The Barcode Scanner contains the circuitry, scanning motor and laser. Handle with appropriate care.

Enter Data

You can enter data into the VX8 through several different methods:

- The tethered scanner connected to the COM1 serial port provides barcode data entry
- The serial ports are used to input/output data
- The keyboards provide manual entry
- The touchscreen also provides manual entry

Keyboard Entry

Refer to "Appendix A Key Maps" for specific keypresses.

The keyboard is used to manually input data that is not collected otherwise. Almost any function that a full sized computer keyboard can provide is duplicated on the LXE VMT keyboard but it may take a few more keystrokes to accomplish a keyed task.

Almost every key has two or three different functions. The primary alpha or numeric character is printed on the key.

For example, when the <2nd> key is selected pressing the desired second-function key produces the <2nd> character i.e. <2nd> + F1 toggles the CAPS Lock function. The specific <2nd> character is printed above the corresponding key.

Please refer to "Appendix A Key Maps" for instruction on the specific keypresses to access all PC-compatible keyboard functions.

Touchscreen Entry

Note: This section is directed to the VX8 user. The assumption is that the unit has been configured and the touch panel calibrated by the System Administrator prior to releasing the VX8 for use.

Note: Always use the point of the stylus for tapping or making strokes on the display. Never use an actual pen, pencil or sharp object to write on the touch screen.

The touchscreen input performs the same function as the mouse that is used to point to and click elements on a desk top computer. The stylus is used in the same manner as a mouse – single tap or double tap to select menu options, drag the stylus across text to select, hold the stylus down to activate slider bars, etcetera.

Right click is generated by tapping the mouse icon in the system tray. After tapping, the mouse icon highlights the right button of the icon in red. The next touchscreen tap is treated as a right click. The mouse icon then returns to the left button highlighted in red so subsequent taps are treated as left clicks.

When using a stylus, hold the stylus as if it were a pen or pencil. Touch an element on the screen with the tip of the stylus then remove the stylus from the screen. The touch screen responds to an actuation force (touch) of up to 4 oz. of pressure.

The touch screen can be used in conjunction with the keyboard and an input/output device connected to one of the VX8's serial ports.

- Touch the stylus to the field of the data entry form to receive the next data feed.
- The cursor begins to flash in the field.
- The unit is ready to accept data from either the keyboard or a device connected to a serial port.

Scanner Entry

The following section is directed toward a generic tethered scanner connected to the COM1 serial port on the VX8.

Aiming the Barcode Scanner

Aim the scanner ***away*** from you, direct it at the barcode and press the trigger to scan.

The Scan On LED (or equivalent) turns red to indicate the scanner is on.

Adjust the aim so that the thin, red laser beam covers the entire length of the barcode.

Some scanners use a laser aiming beam which then spreads into a wide beam when the scanner's Aiming Beam Timer expires. Place the aiming beam in the center of the barcode and hold the scanner steady until the beam spreads and the barcode is decoded. Beeps may be heard as the barcode is decoded. Refer to the barcode scanner user's guide for information on the Aiming Beam Timer and beep sequences, and the TE reference guide for host generated beep sequences.

The scan beam must cross every bar and space on the barcode.

Figure 37 Scan Beam

Distance from Label

Large barcodes can be scanned at the maximum distance. Hold the scanner closer to small barcodes (or with bars that are very close together).

Note: Do not position the scanner exactly perpendicular to the barcode being scanned. In this position, light can bounce back into the scanner's exit window, and possibly prevent a successful decode.

Successful Scan

When the scan is successful, the scanner's good scan indicator illuminates, the scan on indicator is off, and the currently running application may produce a distinctive audible tone.

Unsuccessful Scan

When the scan is unsuccessful, the scan on indicator remains illuminated and the currently running application may produce distinctive audible tones. Check the following:

- Is the scanner programmed for the barcode being read?
- Check the barcode for marks or physical damage e.g. ripped label, missing section, etc.
- Try scanning test symbols of the same code type at different distances and angles.

Appendix A Key Maps

95-key Keypad with Pointing Device

Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Print Screen SysRq Scroll Lock Pause Break Fn
BackSpace Num Lock
Tab Q W E R T Y U I O P 7 Home 8 9 PgUp
Caps Lock A S D F G H J K L Enter 4 5 6
Shift Z X C V B N M Shift 1 End 2 3 PgDn
Ctrl Alt Alt Ctrl 0 Ins Del Enter

Figure 38 95-Key VMT QWERTY Keyboard

The key map table that follows lists the commands used for the VX8.

When running LXE's RFTerm™ program, please refer to the RFTerm™ Reference Guide for equivalent keys and keypress sequences:

Key Map 101-Key Equivalencies

There are ten hidden keys on the 95-key keyboard. Each of these hidden keys is accessed by pressing the <Fn> key plus another key.

To get this key	Press These Keys and Then
Insert	Fn + 0 on the number pad
Home	Fn + 7 on the number pad
Page Up	Fn + 9 on the number pad
Delete	Fn + . on the number pad
End	Fn + 1 on the number pad
Page Down	Fn + 3 on the number pad
Up Arrow	Fn + 8 on the number pad
Left Arrow	Fn + 4 on the number pad
Down Arrow	Fn + 2 on the number pad
Right Arrow	Fn + 6 on the number pad

Note: The 2nd key function is available on the 60-key keyboard only.

60-key Standard Keypad

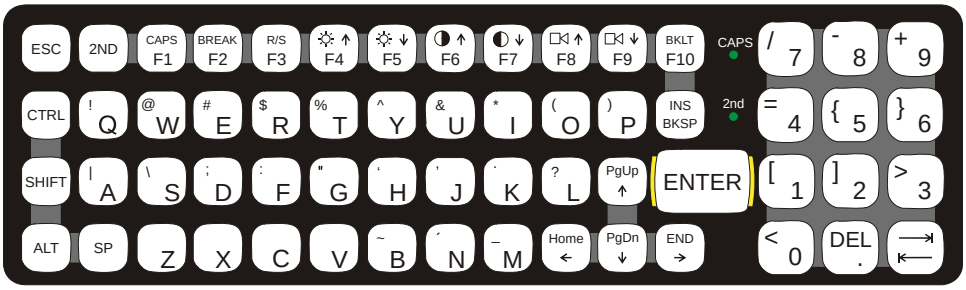


Figure 39 60-Key VMT QWERTY Keyboard

The key map table that follows lists the commands used for the VX8.

When running LXE's RFTerm™ program, please refer to the RFTerm™ Reference Guide for equivalent keys and keypress sequences:

Key Map 101-Key Equivalencies

When using a sequence of keys that includes the <2nd> key, press the <2nd> key first then the rest of the key sequence.

Note: NumLock can be toggled On or Off with the <2nd> <SHIFT> <F10> key sequence. When the computer boots with a VMT keyboard, the default condition of Caps (or CapsLock) is Off. The Caps (or CapsLock) condition can be set using BIOS Setup or toggled with a <2nd>+<F1> key sequence. The CAPS LED on the VMT keyboard is illuminated when CapsLock is On.

To get this key	Press These Keys and Then					Press this key
	2nd	Shift	Ctrl	Alt	CapsLock	
Keyboard Backlight	x		x			F10
Suspend/Resume [1]	x					F3
2nd						2nd
Shift						Shift
Alt						Alt
Ctrl						Ctrl
Esc						Esc
Space						Sp
Enter						Enter
Enter (numeric)	x					Enter
CapsLock (Toggle)	x					F1
Back Space						Ins/BkSp
Tab						Tab

[1] The Suspend/Resume key has no function as Windows Power Management controls the power management modes.

To get this key	Press These Keys and Then					Press this key
	2nd	Shift	Ctrl	Alt	CapsLock	
BackTab	x					Tab
Ctrl-Break [2]	x		x			F2
Pause	x	x				F3
Up Arrow						Up Arrow
Down Arrow						Down Arrow
Right Arrow						Right Arrow
Left Arrow						Left Arrow
Insert	x					Ins/BkSp
Delete (numeric)	x					DEL
Home	x					Left Arrow
End	x					Right Arrow
Page Up	x					Up Arrow
Page Down	x					Down Arrow
Right Shift	x	x				F7
Right Alt	x	x				F8
Right Ctrl	x	x				F9
ScrollLock	x	x				F4
NumLock	x	x				F10
F1						F1
F2						F2
F3						F3
F4						F4
F5						F5
F6						F6
F7						F7
F8						F8
F9						F9
F10						F10
F11	x	x				F1
F12	x	x				F2
a						A
b						B
c						C
d						D
e						E
f						F
g						G
h						H

[2] Press <Ctrl> then <2nd> then <F2> to produce Ctrl-Break.

To get this key	Press These Keys and Then					Press this key
	2nd	Shift	Ctrl	Alt	CapsLock	
i						I
j						J
k						K
l						L
m						M
n						N
o						O
p						P
q						Q
r						R
s						S
t						T
u						U
v						V
w						W
x						X
y						Y
z						Z
A					x	A
B					x	B
C					x	C
D					x	D
E					x	E
F					x	F
G					x	G
H					x	H
I					x	I
J					x	J
K					x	K
L					x	L
M					x	M
N					x	N
O					x	O
P					x	P
Q					x	Q
R					x	R
S					x	S
T					x	T
U					x	U
V					x	V

To get this key	Press These Keys and Then					Press this key
	2nd	Shift	Ctrl	Alt	CapsLock	
W					x	W
X					x	X
Y					x	Y
Z					x	Z
1 (alpha)	x	x				1
2 (alpha)	x	x				2
3 (alpha)	x	x				3
4 (alpha)	x	x				4
5 (alpha)	x	x				5
6 (alpha)	x	x				6
7 (alpha)	x	x				7
8 (alpha)	x	x				8
9 (alpha)	x	x				9
0 (alpha)	x	x				0
DOT (alpha)	x					K
1 (numeric)						1
2 (numeric)						2
3 (numeric)						3
4 (numeric)						4
5 (numeric)						5
6 (numeric)						6
7 (numeric)						7
8 (numeric)						8
9 (numeric)						9
0 (numeric)						0
DOT (numeric)						DOT
<	x					0
[	x					1
]	x					2
>	x					3
=	x					4
{	x					5
}	x					6
/ (numeric)	x		x			7
/ (alpha)	x					7
- (numeric)	x		x			8
- (alpha)	x					8
+ (numeric)	x		x			9
+ (alpha)	x					9
* (numeric)	x					I

To get this key	Press These Keys and Then					Press this key
	2nd	Shift	Ctrl	Alt	CapsLock	
* (alpha)	x		x			I
: (colon)	x					D
; (semicolon)	x					F
?	x					L
`	x					N
_ (underscore)	x					M
, (comma)	x					J
‘ (apostrophe)	x					H
~ (tilde)	x					B
\	x					S
|	x					A
“	x					G
!	x					Q
@	x					W
#	x					E
$	x					R
%	x					T
^	x					Y
&	x					U
(	x					O
)	x					P

Appendix B Regulatory Notices and Safety Information

FCC Information:

This device complies with FCC Rules, part 15. Operation is subject to the following conditions:

1. This device may not cause harmful interference
   and
2. This device must accept any interference that may be received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Warning: Changes or modifications to this device not expressly approved by LXE, Inc., could void the user's authority to operate this equipment.

EMC Directive Requirements:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Industry Canada:

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le Règlement sur le brouillage radioélectrique édits par le ministère des Communications du Canada.

RF Safety Notice:

Caution:

This device is intended to transmit RF energy. For protection against RF exposure to humans and in accordance with FCC rules and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 20 cm (7.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.

Important: This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, contact LXE through your local sales representative, or visit www.lxe.com.

The product complies with the harmonized European standards and technical specifications listed below:

EN 61000-6-4:2001
EN 61000-6-2:2005
FCC part 15 Subpart B

Additionally all models are CB certified and comply with the standard below.

IEC 60950-1:2001 (1st Edition)
EN 61000-6-2:2001

Incl.: Group-and national differences for the CENELEC countries and national differences for US and Canada according to CB Bulletin 109A / USCA 05 I.

Lithium Battery Safety Statement

Caution:
Lithium battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by battery manufacturer. (US)

Attention:
Contient une pile de lithium. Risque d'explosion dans le cas où la pile ne serait pas correctement remplacée. Remplacer uniquement avec une pile semblable ou equivalente au type de pile recommandé par le fabricant. (FR)

Forsigtig:
Indeholder lithiumbattterier. Risiko for eksplosion, hvis batteriet udskiftes forkert. Må kun udskiftes med samme eller tilsvarende type, som anbefalet af fabikanten. (DK)

Varoitus:
Tämä tuote käyttää laservaloa. Skannerissa on jokin seuraavista tarroista. Lue Huomio-kohta. (FI)

Vorsicht:
Enthält Lithium-Batterie. Bei unsachgemäßem Ersatz besteht Explosionsgefahr. Nur durch gleichen oder vom Hersteller empfohlenen Typ ersetzen. (DE)

Attenzione:
Batteria al litio. Pericolo di esplosione qualora la batteria venga sostituita in maniera scorretta. Sostituire solo con lo stesso tipo o equivalente consigliato per il fabbricante. (IT)

Atenção:
Contém pilha de lítio. Há perigo de explosão no caso de uma substituição incorreta. Substitua somente pelo mesmo tipo, ou equivalente, recomendado pelo fabricante. (PT)

Varning:
Innehåller litiumbatteri. Fara för explosion om batteriet är felaktigt placerat eller av fel typ. Använd endast samma eller motsvarande typ batterier rekommenderade av tillverkaren. (SE)

Advarsel:
Innmontert Lithium batteri. Eksplosjonsfare ved feil montering av batteri. Benytt kun batteri anbefalt av produsent. (NO)

Cuidado:
Pila de litio adentro. Peligro de explosión si la pila se reemplaza incorrectamente. Reemplace solamente con el mismo tipo o equivalente recomendado por el fabricante. (ES)

Oppassen:
Bevat Lithium-batterij. Incorrrecte plaatsing van batterij kan leiden tot explosiegevaar. Alleen vervangen door hetzelfde of door fabrikant aanbevolen gelijkwaardig type. (NL)

Lithium Battery Safety Statement

Προσοχή: Υπάρχει μπαταρία από λίθιο εσωτερικά. Υπάρχει κίνδυνος έκρηξης εάν η μπαταρία αντικατασταθεί με λανθασμένο τρόπο. Αντικαταστήστε μόνο με τον ίδιο ή ισοδύναμο τύπο που συνιστάται από τον κατασκευαστή. (GR)	**주의:** 리튬 배터리 내부. 배터리가 잘못 설치되었을 경우 폭발의 위험이 있습니다. 동일한 배터리, 또는 배터리 제조업체가 권장하는 배터리로 교체하십시오. (KR)
注意: リチウム電池が入っています。間違った種類の電池を使用すると、破裂する恐れがあります。同じ電池、または電池製造元が推奨する同等の電池を使用してください。 (JP)	**小心:** 内装锂电池。如电池更换不当，则有发生爆炸的危险。只能用电池制造商推荐的相同或同等电池进行更换。 (CN)
Dikkat: İçinde lityum bataryası bulunur. Bataryanın yanlış değiştirilmesi patlama tehlikesi yaratır. Aynısıyla veya üreticinin önerdiği eşdeğer tiple değiştirin. (TR)	

Legend:

Chinese	CN	Italian	IT
Danish	DK	Japanese	JP
Dutch	NL	Korean	KR
English	US	Norwegian	NO
Finnish	FI	Portuguese	PT
French	FR	Spanish	ES
German	DE	Swedish	SE
Greek	GR	Turkish	TR

Français Avertissement et emarque

	Le manuel n'explique pas comment installer et utiliser le système d'exploitation ou les applications.
	Avertissement ! Vous avertit des risques de dommages pour les individus ou les biens. Suivez toujours les instructions qui figurent en regard de ce symbole.
	Remarque ! Attire votre attention sur les problèmes qui peuvent survenir si une mesure n'est pas prise ou est prise de manière incorrecte.
	Soyez toujours prudent lorsque vous travaillez avec l'électricité.
	Ne mettez jamais l'ordinateur sous tension si les conditions environnementales ne sont pas dans les limites indiquées (cf. Annexe I, Spécifications). Par exemple, vérifiez que l'ordinateur est mis sous tension avant d'entrer dans une unité de stockage froide.
	Avant l'installation, veillez à ce que tous les critères relatifs à l'environnement soient respectés. Vous trouverez une liste de ces critères en Annexe I, dans les Spécifications.
	Ne changez pas les vis d'origine avec lesquelles sont montés les supports. Des vis trop longues peuvent endommager le système électrique de l'ordinateur.
	Soyez toujours prudent lorsque vous travaillez avec l'électricité.
	Si la masse du véhicule n'est pas la même que celle du châssis du véhicule, vous devez alors monter l'ordinateur sur des patins en caoutchouc.
	Ne connectez jamais l'alimentation aux prises 5 ou 6, qui servent à la fonction de noir de l'écran décrite à la section .2.2.
	Vous pouvez définir cette fonction dans l'application VMT Computer Manager ; cf. 4.3.1.
	Seuls les salariés (IT) expérimentés sont autorisés à utiliser le logiciel VMT Computer Manager car des paramètres incorrects peuvent avoir des effets indésirables sur certaines fonctions.
	Si vous modifiez ou réinstallez le système d'exploitation de l'ordinateur, vous pouvez être amené à réinstaller les pilotes pré-installés.
	Une fois que les périphériques sont connectés, fixez les câbles sur la partie inférieure de l'ordinateur qui comporte des trous prévus pour les brides de câbles.
	N'oubliez pas que les systèmes d'exploitation n'ont pas tous une prise en charge intégrée de la souris (par exemple, DOS).

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